

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Graver Technologies

Delaware Manufacturing Extension Partnership

Lean Becomes an Integral Part of Doing Business at Graver Technologies

Client Profile:

Graver Technologies, located in Glasgow, Delaware designs, develops, and manufactures products that facilitate and enhance separation, purification, and process filtration. Graver Technologies specializes in the trace contaminant removal and purification of process water, fluids, compressed air, and process gases. Its filters are used in the food and beverage, pharmaceutical and chemical industries. The company also makes condensate polishing materials used in nuclear power plants. Graver, in addition to its headquarters and manufacturing plant in Glasgow, also has locations in Newark, NJ and Honeoye Falls, NY. The company employs 85 people at its Glasgow facility.

Situation:

Graver's Vice President and General Manager, Bill Cummings, was familiar with Lean and introduced Lean techniques to another manufacturing firm during his tenure as manager. After joining Graver, Cummings contacted the manufacturing specialists at the Delaware Manufacturing Extension Partnership (DEMEP), a NIST MEP network affiliate, to seek their help in launching a Lean program. "He found Delaware MEP," said John Barone, a DEMEP manufacturing specialist who worked with Cummings and the team at Graver, "and found a very willing participant who has taken the ball and run with it."

Solution:

DEMEP led Graver employees through its "Intro to Lean" training course. DEMEP specialists guided the company's managers and workers through 5S (Sort, Set in Order, Shine, Standardize, Sustain) sessions, Value Stream Mapping (VSM) and Cellular Manufacturing exercises. Two of Graver's assembly lines, its clean room, warehouse and maintenance all underwent a 5S review and organization. As Cummings describes it, Graver is making "a steady march forward" in implementing Lean. The result, he says, is increased productivity, few worker accidents, and a "polished, tight, tour-ready facility." Cummings also credits Lean with creating "a culture where we have a much higher level of employee engagement." "It has allowed us to understand who we are, where we were weak and where we were strong," he said. The Glasgow plant, has gone one year without a worker injury and nearly two years without a loss-time injury. The signs of Lean are evident throughout the Glasgow plant, from the marking tape on the floor, outlining where the trash bins go, to the improvement program where employees submit ideas on improving quality and safety. On one of the assembly lines, a check list and photos show workers what the line should look like. A check list reminds workers to empty the trash, return tools to their proper locations and complete their paperwork. The introduction of Lean manufacturing has helped improve work flow and organization at the Glasgow facility. Before Lean, workers had to use a forklift to pull boxes off the shelves to see what was inside. Now, boxes are labeled by part number. As part of Lean, Graver assigned a different color - blue, purple or green - to each of its three assembly lines. A piece of colored tape was affixed to each tool designating the assembly line to which it belongs and marking tape outlines on peg boards show

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where each tool, such as tape measures, wrenches and depth gauges, belong. Introducing Lean has resulted in "organization, cleanliness and no wasted time," said Robin Callaghan, Graver's quality manager. Workers, who no longer have to hunt for missing tools, appreciate the changes.

"Everything is where it's supposed to be," said Lillian Villafane, a machine operator. With DEMEP's assistance, Graver has reduced overall cost by increasing the throughput of the production lines.

Results:

- * Reduced inventory by 38 percent.
- * Reduced costs by 31 percent.
- * Avoided \$400,000 in capital expenditures.
- * Expanded floor space by 20 percent.

Testimonial:

"Lean has become an integral part of the way Graver does business and a way of setting the company apart from its competitors."

Bill Cummings, Vice President